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An

Inaugural Essay

on

Scarlatina

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For the degree of Doctor of Medicine
in the

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by

Hudson S. Burr
of

New Jersey.

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Scarlatina or Scarlet Fever

Scarlet fever is probably a disease of very modern origin. No mention of it is made by the ancient or Arabian authors, and the first time it is distinctly noticed is but little more than two hundred years ago. It has been suspected that the contagion came originally from Africa. Be this as it may, it first broke out in a severe form in Spain in 1610, from whence it spread to Naples, where it raged epidemically in 1618. In 1689 the same disease made its appearance in London, and was described by Doctor Morton, though not with the accuracy of the first Spanish and Italian authors.

In 1735 it broke out in North America, and spread gradually but slowly over that continent. One of the most curious circumstances in the history of the disease is the slowness of its diffusion.

When the scarlet fever first appeared in Europe, it was in a very malignant form; but between the years 1660

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and 1670, a febrile disease attended with scarlet eruption was observed by Sydenham in a form so singularly mild, that nosologist have doubted its being really the same disease with that which had previously occurred. Dr Cullen believed it was specifically different.

Dr Withering states, that in his early practice he considered scarlet fever and putrid sore throat distinct diseases, requiring distinct methods of treatment. More enlarged experience however compelled him to renounce that opinion; and he says, that after paying assiduous attention to the subject, by observing the disease in every difference of season, exposure, age and temperament, he was satisfied that they constitute but one species of disease;—that the variations in their appearances depend upon contingent circumstances, and that their greatest differences are not greater than those of the distinct and confluent small-pox."

("Gregory") I have not the least doubt but it was Scarlatina simplex of our present nomenclature.

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Scarlatina receives its name from the peculiarly florid appearance of the skin by which it is accompanied.

It is more prevalent in winter and in spring, than in summer and autumn, and more frequently attacks children than adults.

Scarlatina is divided into three forms viz:

1st. Scarlatina Simplex.

2nd Scarlatina Anginosa.

3rd Scarlatina Maligna this third form is also called Cynancha Maligna or Putrida and Putrid Sore Throat.

Scarlatina Simplex is the simple constitutional disease.

Scarlatina Anginosa is a higher degree of the same disease, the throat being swollen and inflamed.

Scarlatina Maligna is a still higher degree of the same disease, being of a malignant character,

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the throat is inflamed in this species also.

These are the same disease in different degrees, they are related to each other as the distinct and confluent small pox; typhus mitior and typhus gravior, and the several stages of bilious fever.

Scarlatina comes on with anorexia, chilliness, fulness and tension of the head, prostration of strength, nausia and vomiting, the skin is hot florid or otherwise according to the nature of the case. At this period the throat is slightly inflamed, the tongue red, there is more or less of a catarrhal affection; pain in the head, and sometimes a disturbance of the intellectual faculties. The disease being slight the complaint will be "Simplex" when more severe "Anginosa" and when threatening "Maligna".

In the malignant form of the disease, the patient becomes pale, sick and faint, the intellectual faculties confused, præcordial oppression,

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It is admitted that the rule should be adhered to when the disease is in question.

Diagnosis. The eruption of disease with which scarlatina is liable to be confounded is prurigo. From this it may be distinguished by the character of the eruption, from the colour of the skin, and the appearance of the tongue.

The character of the eruption from the eruptive form of the disease appears universally on the second day: the papules, beginning at the neck, spread over the face, and in two days more are found to be universally, and each under the cuticle surrounded with minute pimples, or some placed forming continuous irregular patches or others coalescence with a uniform skin over a considerable extent of surface.

In the papules the rash is composed of circular discs, partly distinct, partly set in small clusters or patches and a little elevated above the surrounding

[illegible] on passing the finger over them. These [illegible] [illegible] [illegible]

In Scarlatina depression anxiety and great weakness attends the fever, is marked, & the malignant symptoms are of the typhoid variety.

The peculiarity of the tongue in Scarlatina is a good diagnostic. It is usually furred [illegible] and through the coat the [illegible] papillae appear prominently. [illegible] the [illegible] considerably lengthened in bad cases.—

Prognosis. Great reduction of strength, [illegible] distillation of acrid sanies from the fauces, purple appearance of the fauces with dark sloughs, and [illegible] [illegible] with deafness, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] any colour are called accordingly dangerous symptoms. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] occurrance of recovery [illegible] [illegible] [illegible] [illegible] death will occur on the third or fourth day, but sometimes it lingers for three or four weeks, but generally it may be said

that the patient is safe. In the cases [illegible] milder [illegible] [illegible] a favourable termination are [illegible] [illegible] the abatement of the heat and fury, change [illegible] the skin, disappearance of the rash and the subsidence of the laryngitis, moderate sweating [illegible] the [illegible], the falling off of the cuticle, return of the circulation [illegible] return of appetite.

Dissections. The mucous membrane of the primae viae and lungs is found much inflamed [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the mucous [illegible] [illegible] [illegible], the [illegible] [illegible] injected [illegible] [illegible] [illegible] and [illegible] the substance. When the throat has been much ulcerated [illegible] gangrene [illegible] [illegible] [illegible] [illegible] extend through the [illegible] attendant [illegible] [illegible] [illegible].

Pathology. Scarlatina is of gastric origin. this is indicated by the [illegible] nausea and vomiting, the [illegible] in digestion confirm this [illegible] the [illegible] of the disease [illegible] [illegible] [illegible]

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Treatment. In the simple form Scarlatina calls for little medical aid. An Emetic or a precautionary or Tartar Emetic should be given, purge with calomel followed by the saline salts, and a free diaphoresis is to be induced. In the severe form the treatment is more serious, allowing the evacuation of the alimentary canal after active vomiting with Tartar Emetic, which is followed by purgatives, as called for. The Emetic practice is highly injurious when the contents of the stomach, where the poison has not been taken out, decomposed, or, that is the remedy, is reaching up the brain in a condition of asphyxia. When the attack is the severe form accompanied with the symptoms of the nervous system, some physicians have hesitated to give an emetic.

The emetic should be followed by purgatives with calomel, this is the most proper purge and is best administered, moreover, when there is the abdominal

[illegible] which are very apt to occur [illegible] the

[illegible] have been much aggravated [illegible] by the [illegible]

inhalation [illegible] the [illegible] state.

The [illegible] of the [illegible]

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[illegible] of the [illegible]

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The warm and cold water have both been recommended

and [illegible] used without any [illegible] 4 [illegible]

[illegible] and [illegible] there is the disease

sponging the body with cold water may be [illegible] but

[illegible] relief, immersion in cold water is

objectionable [illegible] it has proved [illegible]

[illegible] with cold water when there is much [illegible]

[illegible] and heat of surface is preferable [illegible]

next to this dashing cold water on the body.

The warm bath is recommended where the eruption

comes out [illegible] or imperfectly come out, but is not

[illegible] found very useful under such circumstances

are blisters to the epigastrium, and a stimulant to the warm extremities.

Let there be low diet, a cooling aperient, and regular care: if the throat is already ulcerated, tepid water, lancing and blistering are to be used.

Warm applications to the throat, such as relaxing hot solutions, mustard and vinegar, should be used; a cloth is not much used in a similar way, but by directing the steam from the interior to the exterior.

Congestion in the abdominal viscera, which is indicated by a sense of weight or pain, is to be relieved by topical bleeding, blisters, and the alterative use of mercury.

To cleanse the foul ulcers of the throat, cooling is of service; the mouth is to be washed with the use of some detergent gargle, such as decoction of bark with myrrh, acidulated barley water, or an infusion of cayenne pepper. The rotten, or necrosed, wound.

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℞. Cayenne pepper 2 table spoonfuls
Common salt — 1 " "
Boiling water
vinegar each ℥vj.

Infuse and strain. Give a table spoonfull as often as is required. This is used as a gargle and given internally by the practitioners of the west Indies in cases of malignant

The treatment of the malignant form is nearly the same: the primæ viæ are to be evacuated by an emetic and purge in cases of the gastric bilious, and afterwards attention to the vitiating causes and support the system by carbonate of Ammonia, camphor, spirits of turpentine, brandy and wine, and the ordinary external applications.

Now which is cause & the disease there are certain points which may require attention: Dysphagia may occur early from the distention of the tonsils being inflamed and black at times requires this attention.

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Œdema of the lower extremeties frequently follows Scarlet fever: the best treatment for this is bleeding moderate purging and the exhibition of Digitalis; this article will sometimes prove eminently beneficial; fractions, bandages and exercise are to be used.

In Germany, the use of the belladonna has been proposed as a preventive for this disease. Its author is Hahneman of Leipsic; Bernadt of Custrin states that out of one hundred and ninety-five cases of children under fourteen who took belladonna, and were freely exposed to the contagion fourteen only were infected: and that when he afterwards used a stronger preparation of the drug, every one escaped: all those exposed in families, who had the Scarlatina and who did not take the medicine took the disease: whilst those who did, escaped. Other strong testimonies are given in its favour: Kreff of Berlin states that if the belladonna be taken in proper doses for eight or nine days before exposure, the persons

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taking it are safe. The quantities given are very small: Three grains of the extract are dissolved in an ounce of cinnamon water, and of this two or three drops are given to a child under twelve months and one drop more for every year above that. In general no effect is produced by it: Sometimes however it produces an eruption like that of scarlatina: It renders the attack more mild, if it does not prevent the disease; and if taken four or five days before exposure the disease never proves fatal."*

* Ed. Med. and Surg. Journal January 1825.